

Revenue and Expenses

OPERATING REVENUES

	1992	1991
Sales of Electric Energy to Members	\$ 56,198,922	\$ 59,333,999
Wheeling to Municipals and Others	613,228	667,935
Rent from Electric Property	426,490	435,105
	<u>\$ 57,238,640</u>	<u>\$ 60,437,039</u>

OPERATING EXPENSES

Purchased Power	\$ 41,984,600	\$ 45,325,369
Operations & Maintenance of Distribution & Transmission Plant	2,721,815	2,965,358
Administrative and General	3,908,631	3,486,827
Directors' Fees, Mileage & Expenses	205,363	180,977
Taxes	1,531,498	1,667,186
	<u>\$ 50,351,907</u>	<u>\$ 53,625,717</u>

INTEREST AND OTHER DEDUCTIONS

Interest on Long Term Debt	\$ 3,951,184	\$ 4,109,651
Depreciation Expenses	2,228,237	2,212,201
Other Operating Deductions	31,945	27,623
	<u>\$ 6,211,366</u>	<u>\$ 6,349,475</u>

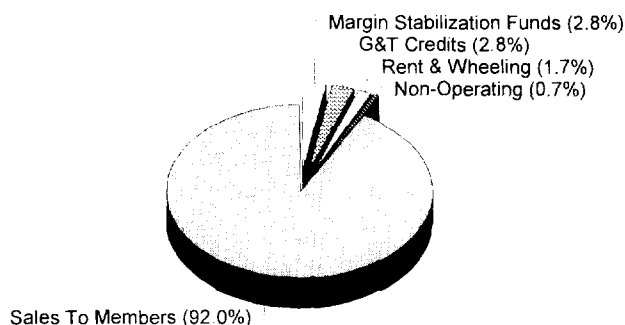
TOTAL COST OF ELECTRIC SERVICE	\$ 56,563,273	\$ 59,975,192
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MARGINS

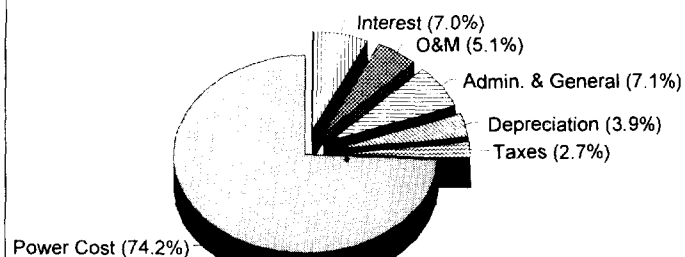
Net Operating Margin	675,367	461,847
Non-Operating Margin	440,633	638,153
G & T Capital Credits (Basin)	1,696,250	1,373,479

NET MARGINS	\$ 2,812,250	\$ 2,473,479
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1992 Revenue Dollar



1992 Expense Dollar





The Department Managers for East River Electric Power Cooperative include (seated from left): Daryl Thorson, Manager of Engineering Services; Leo Becht, Manager of Substation and Construction and Joe Halverson, Manager of Transmission.

Standing, from left, are: Dan Wall, Manager of Administrative Services; Mark Weismantel, Manager of Telecommunications and Control and George Colombe, Manager of Dispatch, Metering/Relaying.

East River Electric Power Cooperative is organized in three Divisions---the Operations Division headed by Everett Quam, Assistant General Manager for Operations; the Administration Division headed by Don Marker, Assistant General Manager for Administration and the Member Services Division headed by Scott Parsley, Assistant General Manager for Member Services.

The Operations Division has five departments including the Transmission Department, Substation and Construction Department, Engineering Services Department, Telecommunications and Control Department and the Dispatch, Metering/Relaying Department.

The Administration Division has two departments including the Finance and Accounting Department and the Administrative Services Department.

The Member Services Division has no departments, but carries out duties in member services including printing and audio-visual services, marketing, economic development, publications and communications and technical services.

Member Cooperative Profiles

Beadle Electric Cooperative

Huron, South Dakota
Robert Rademacher, Manager

Consumer Accounts	1,974
Peak Demand	6.6 MW
Miles of Line	1,413
Total KWH Sales	32,315,035
Revenues from Consumers ..	\$2,367,234

Bon Homme-Yankton Electric Assn.

Tabor, South Dakota
Ron Koupal, Manager

Consumer Accounts	2,735
Peak Demand	11.4 MW
Miles of Line	1,316
Total KWH Sales	54,816,928
Revenues from Consumers ..	\$3,977,535

Charles Mix Electric Assn.

Lake Andes, South Dakota
Mark Mengershauser, Manager

Consumer Accounts	1,855
Peak Demand	8.1 MW
Miles of Line	1,354
Total KWH Sales	31,501,603
Revenues from Consumers ..	\$2,563,541

Clay-Union Electric Corp.

Vermillion, South Dakota
Paul Roberts, Manager

Consumer Accounts	2,936
Peak Demand	10.6 MW
Miles of Line	1,063
Total KWH Sales	42,671,799
Revenues from Consumers ..	\$3,679,586

Codington-Clark Electric Cooperative

Watertown, South Dakota
Bert Voegelé, Manager

Consumer Accounts	2,601
Peak Demand	12.9 MW
Miles of Line	1,794
Total KWH Sales	57,973,263
Revenues from Consumers ..	\$4,147,415

Douglas Electric Cooperative

Armour, South Dakota
Merlin Goehring, Manager

Consumer Accounts	820
Peak Demand	3.8 MW
Miles of Line	523
Total KWH Sales	16,108,236
Revenues from Consumers ..	\$1,172,541

FEM Electric Assn.

Ipswich, South Dakota
David Holland, Manager

Consumer Accounts	2,044
Peak Demand	7.5 MW
Miles of Line	2,264
Total KWH Sales	38,012,829
Revenues from Consumers ..	\$2,723,883

H-D Electric Cooperative

Clear Lake, South Dakota
Gary Cramer, Manager

Consumer Accounts	2,963
Peak Demand	11.7 MW
Miles of Line	1,517
Total KWH Sales	47,941,610
Revenues from Consumers ..	\$3,425,871

Intercounty Electric Assn.

Mitchell, South Dakota
Loren Noess, Manager

Consumer Accounts	3,103
Peak Demand	11.4 MW
Miles of Line	2,239
Total KWH Sales	54,036,138
Revenues from Consumers ..	\$4,217,858

Kingsbury Electric Cooperative

DeSmet, South Dakota
Dennis Kruse, Manager

Consumer Accounts	879
Peak Demand	4.5 MW
Miles of Line	749
Total KWH Sales	18,195,338
Revenues from Consumers ..	\$1,296,330

Lake Region Electric Assn.

Webster, South Dakota
James Mammenga, Acting Manager

Consumer Accounts	3,271
Peak Demand	11.8 MW
Miles of Line	1,823
Total KWH Sales	50,991,614
Revenues from Consumers ..	\$3,699,282

Lincoln-Union Electric Co.

Alcester, South Dakota
Gordon Crawford, Manager

Consumer Accounts	3,400
Peak Demand	13.4 MW
Miles of Line	1,286
Total KWH Sales	64,670,832
Revenues from Consumers ..	\$4,778,714

Lyon-Lincoln Electric Cooperative

Tyler, Minnesota
Michael Buckle, Manager

Consumer Accounts	3,718
Peak Demand	16.0 MW
Miles of Line	1,610
Total KWH Sales	62,073,730
Revenues from Consumers ..	\$4,418,048

McCook Electric Cooperative

Salem, South Dakota
Darrell Kirby, Manager

Consumer Accounts	1,364
Peak Demand	5.6 MW
Miles of Line	778
Total KWH Sales	23,807,480
Revenues from Consumers ..	\$1,831,416

Northern Electric Cooperative

Bath, South Dakota
Dennis Hagney, Manager

Consumer Accounts	3,678
Peak Demand (ER only)	16.4 MW
Miles of Line	1,763
Total KWH Sales	85,987,910
Revenues from Consumers ..	\$5,264,774

Oahe Electric Cooperative

Blunt, South Dakota
Vernon Jutila, Manager

Consumer Accounts	1,937
Peak Demand	17.1 MW
Miles of Line	1,190
Total KWH Sales	39,602,634
Revenues from Consumers ..	\$2,734,706

Ree Electric Cooperative

Miller, South Dakota
Vernon Jutila, Manager

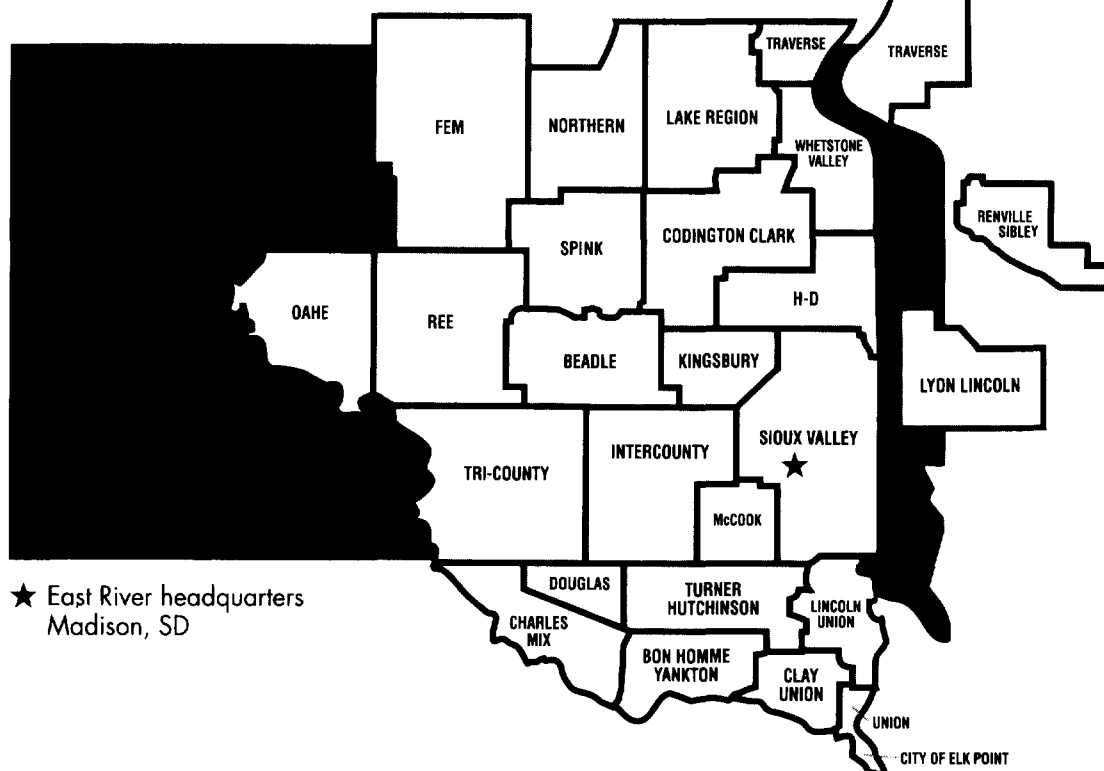
Consumer Accounts	1,317
Peak Demand	5.0 MW
Miles of Line	1,454
Total KWH Sales	21,347,175
Revenues from Consumers ..	\$1,666,394

Renville-Sibley Cooperative Power Assn.

Danube, Minnesota
Robert Westby, Manager

Consumer Accounts	1,952
Peak Demand	12.0 MW
Miles of Line	1,132
Total KWH Sales	62,730,014
Revenues from Consumers ..	\$3,758,849

The East River Power System includes these 25 electric distribution cooperatives and one municipal electric system.



★ East River headquarters
Madison, SD

Sioux Valley Empire Electric Assn.

Colman, South Dakota
James Kiley, Manager

Consumer Accounts	13,112
Peak Demand	46.6 MW
Miles of Line	4,013
Total KWH Sales	215,113,892
Revenues from Consumers ..	\$16,047,846

Spink Electric Cooperative

Redfield, South Dakota
Arnold Anderson, Manager

Consumer Accounts	1,386
Peak Demand	5.6 MW
Miles of Line	1,243
Total KWH Sales	23,378,751
Revenues from Consumers ..	\$1,873,801

Traverse Electric Cooperative

Wheaton, Minnesota
Donald O'Leary, Manager

Consumer Accounts	2,551
Peak Demand	11.3 MW
Miles of Line	1,663
Total KWH Sales	55,649,224
Revenues from Consumers ..	\$3,515,773

Tri-County Electric Assn.

Plankinton, South Dakota
Clarence Moshier Jr., Manager

Consumer Accounts	3,162
Peak Demand	10.6 MW
Miles of Line	2,297
Total KWH Sales	50,444,378
Revenues from Consumers ..	\$3,834,785

Turner-Hutchinson Electric Cooperative

Marion, South Dakota
Brad Schardin, Manager

Consumer Accounts	3,651
Peak Demand	16.2 MW
Miles of Line	1,946
Total KWH Sales	71,222,191
Revenues from Consumers ..	\$5,011,635

Union County Electric Cooperative

Elk Point, South Dakota
Larry Cheney, Manager

Consumer Accounts	1,174
Peak Demand	4.8 MW
Miles of Line	440
Total KWH Sales	16,578,962
Revenues from Consumers ..	\$1,474,669

Whetstone Valley Electric Cooperative

Milbank, South Dakota
Floyd Dailie, Acting Manager

Consumer Accounts	2,872
Peak Demand	11.9 MW
Miles of Line	1,497
Total KWH Sales	53,249,998
Revenues from Consumers ..	\$3,629,700

City of Elk Point

Elk Point, South Dakota
Dennis Larsen, Superintendent

Consumer Accounts	665
Peak Demand	2.0 MW
Miles of Line	15
Total KWH Sales	10,268,860
Revenues from Consumers ..	\$693,367

Data Source: REA form 7 and 7b



EAST RIVER

ELECTRIC POWER COOPERATIVE

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Madison, SD 57042 Telephone (605) 256-4536



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FACTS & FIGURES



JULY 1994

EAST RIVER ELECTRIC POWER COOPERATIVE, INC.

FACTS AND FIGURES

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A BRIEF HISTORICAL PERSPECTIVE

During the mid-1930's, most of the rural people in South Dakota and Minnesota had no central station electric service; in fact, only one in ten homes throughout rural America had electricity.

The private power companies claimed it would cost too much to provide service to the rural homes, farms and ranches. The country was in a great depression during this period and the private companies were interested in generating the most revenue per mile of line from their city customers.

President Franklin D. Roosevelt was determined to bring the United States out of the depression and established numerous programs to get the country back on its feet. One of President Roosevelt's dreams was that rural Americans should enjoy the benefits of electric power and improve their standard of living.

REA CREATED

On May 11, 1935, President Roosevelt created the Rural Electrification Administration (REA) by executive order. REA would soon become the means by which cooperatives throughout the country could obtain low-cost financing to build electric lines to rural areas.

The people of South Dakota and Minnesota were no different. They took up the task of organizing their own rural electric cooperatives during the late 1930's and early 40's because they had faith in their ability to organize and operate their own electric system.

Nationwide, rural electric cooperatives, for the most part, were forced to rely on private utilities for wholesale power supply. Cooperatives soon realized they could not rely on private power companies for a long term, cost effective and reliable power supply.

THE NEED FOR A WHOLESALE COOPERATIVE

A similar situation faced rural electric cooperatives in eastern South Dakota and western Minnesota after World War II. On October 26, 1949, twenty-one cooperative systems in eastern South Dakota and western Minnesota joined together to organize East River Electric Power Cooperative. East River would build and operate the transmission lines and substations to provide wholesale power to the distribution cooperatives.

Originally the cooperative was organized into nine districts and the incorporator-directors were:

Alfred J. Pew, Milbank, chairman; Dwight Dickason, Castlewood, vice chairman; Kenneth Holum, Groton, secretary; Rangvald Sveningson, Lane, treasurer; Sam Ulrikson, Canton; Louis Ellefson, Sherman; C.W. Stitt, Carpenter; William Raabe, Tyndall and Max Farrar, Hurley.

Virgil T. Hanlon, then manager of Lincoln-Union Electric Company, Alcester, was named the first general manager of East River on November 16, 1950. He served in that capacity until his death on May 19, 1969. East River's original work force included five employees: Hugo Tosch, materials expediter; Virgil Horner, right-of-way chief; Cliff Guernsey, office manager and Alice Baum and Delsie Schrag, secretaries.

EAST RIVER BEGINS CONSTRUCTION IN 1951

Using a \$6-million loan from REA, bids were let for East River's first construction in May, 1951. The Cooperative's offices were moved from Sioux Falls to Madison at this time.

Four substations and 73 miles of transmission line were energized July 17, 1952. On May 28, 1954, the last of the original 45 substations were energized along with 772 miles of 69,000 volt transmission lines.

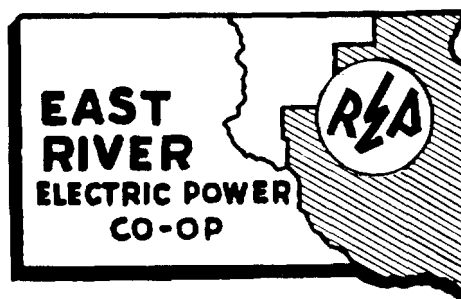
The first hydropower from the Missouri River dams flowed into the East River system in June, 1954 and by November, 1954, federal hydropower was being used to meet the total needs of East River's 21 member systems and the 45,000 farm families they served.

During the 1960's, the City of Elk Point municipal system and Lyon-Lincoln Electric Cooperative, Tyler, Minnesota, joined East River. Oahe Electric Cooperative, Blunt, joined in 1976; FEM Electric Association, Ipswich, in 1979 and the Renville-Sibley Cooperative Power Association, Danube, Minnesota, in 1985.

Following the death of Virgil Hanlon, Loren Zingmark was named General Manager in December, 1969. He retired in January, 1986, after 34 years of service to East River and rural electrification. Robert W. Feragen was named to succeed Zingmark in January, 1986. After 29 years in the public power program, including 3 years as administrator of the Rural Electrification Administration, Feragen retired in January 1990. Jeffrey L. Nelson succeeded him as General Manager on February 1, 1990.

The 21 distribution cooperatives which formed East River were:

*Beadle Electric Cooperative, Huron
Bon Homme-Yankton Electric Association, Tabor
Charles Mix Electric Association, Lake Andes
Clay-Union Electric Corporation, Vermillion
Codington-Clark Electric Cooperative, Watertown
Douglas Electric Cooperative, Armour
H-D Electric Cooperative, Clear Lake
Intercounty Electric Association, Mitchell
Kingsbury Electric Cooperative, DeSmet
Lake Region Electric Association, Webster
Lincoln-Union Electric Company, Alcester
McCook Electric Cooperative, Salem
Northern Electric Cooperative, Aberdeen
Ree Electric Cooperative, Miller
Sioux Valley Empire Electric Association, Colman
Spink Electric Cooperative, Redfield
Traverse Electric Cooperative, Wheaton, MN
Tri-County Electric Association, Plankinton
Turner-Hutchinson Electric Cooperative, Marion
Union County Electric Cooperative, Elk Point
Whetstone Valley Electric Cooperative, Milbank*



*East River's logo
after it was formed in 1949.*

TWENTY SIX MEMBER DISTRIBUTION SYSTEMS

Today, East River serves 26 member distribution systems and their 70,000 consumer accounts throughout a service area which includes practically all of South Dakota east of the Missouri River and several counties in western Minnesota.

East River operates and maintains 2540 miles of high voltage transmission line and 200 substations covering an area of 36,000 square miles, an area equal to the size of the State of Indiana.

Collectively, East River and its 26 member systems have approximately 560 employees and more than 41,000 miles of energized transmission and distribution line. Nationally, rural electric cooperatives provide electric power to more than 20 million Americans through nearly 1,000 generation, transmission and distribution cooperatives.

During its history, East River has been a driving force in creating several important power supply organizations including the Mid-West Electric Consumers Association, the Missouri Basin Systems Group and Basin Electric Power Cooperative which was organized in 1960 to build the coal fired generating plants needed to supplement the federal power for more than 100 cooperatives in eight states.

Currently, East River receives approximately 50 percent of its power requirements from the Western Area Power Administration which markets the federal hydropower in this region and the

remaining 50 percent of East River's power purchases are from Basin Electric's coal fired generating plants located in North Dakota, South Dakota and Wyoming.

CHALLENGES OF SERVING RURAL AREAS

Serving the sparsely settled rural areas of the midwest means that rural cooperatives have few consumers per mile of line, sometimes resulting in higher costs for rural electric service. Cooperatives are also contending with the trends of outmigration from the rural areas, meaning there are fewer consumers to share the costs of providing service through their cooperative.

East River and its members use the latest in power system technology including a Supervisory Control and Data Acquisition (SCADA) System for power system operations; as modern microwave communications system for voice communication and data acquisition; and a demand side management system designed to moderate peak demand and increase the use of off-peak energy, all to provide a savings to consumers. The demand side management system has been a vital tool in helping control the rising cost of power in recent years.

Throughout its history, East River has been committed to providing the most dependable, reliable electric service possible to its member systems at the lowest possible cost.

FINANCIAL INFORMATION

LOANS:

East River finances all construction of electric plant with 34 year maturity loans through the Rural Electrification Administration (REA), National Rural Utilities Cooperative Finance Corporation (CFC), Federal Financing Bank (FFB) and Heartland Consumers Power District. Through December 1993, the Cooperative had signed notes totaling

\$106.5 million and repaid \$31.2 million of principal and \$56.4 million on interest. In January of 1994, East River repriced \$5.7 million of high interest FFB debt. The new interest rate was 6.1% as compared with rates ranging from 8.1% to 10.7%. The blended average interest rate on long term loans for 1992 was 5.4%.

REVENUE:

The major portion of East River revenue requirements are received through sales to the 26 member systems. The average wholesale rate to members in 1993 was 40.07 mills/KWH. The actual cost to each member system varies depending on their particular load patterns. East River also provides transmission for federal hydropower and supplemental power for 24 municipal systems, state

institutions, irrigation districts and investor-owned utilities. The Cooperative receives a transmission fee based on the investment necessary to serve these types of customers. The basic transmission rate is \$12.65/KW per year or about 3.1 mills/KWH for year-round loads. Figure 1 gives a percentage breakdown of East River's 1993 revenue dollar.

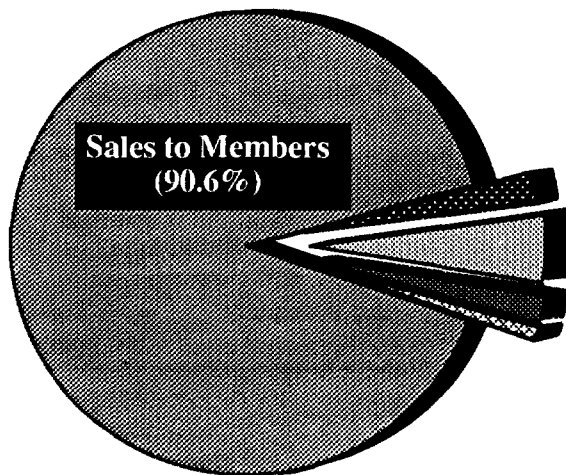


Figure 1
1993 REVENUE DOLLAR

Margin Stabilization Funds (2.0%)

G & T Credits (4.6%)

Rent & Wheeling (2.0%)

Non-Operating (0.8%)

EXPENSES:

About 74% of East River's expenses are for purchased power. The next largest expense is for administrative and general at 7.1%. Other expenses

include operation and maintenance, interest, depreciation and amortization and taxes. Figure 2 shows the breakdown of expenses.

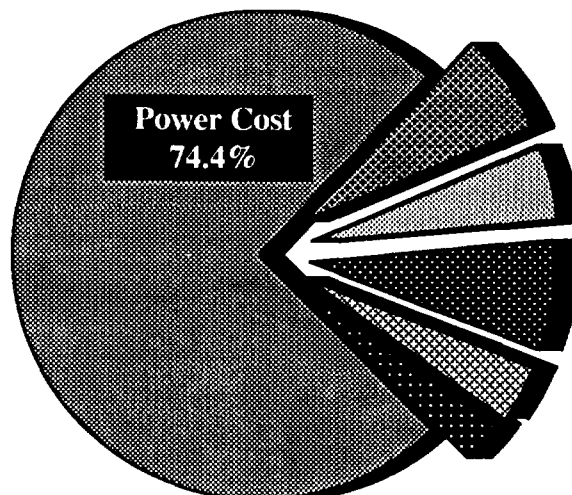


Figure 2
1993 EXPENSE DOLLAR

6.6% Interest

5.2% O & M

7.1% Administration & General

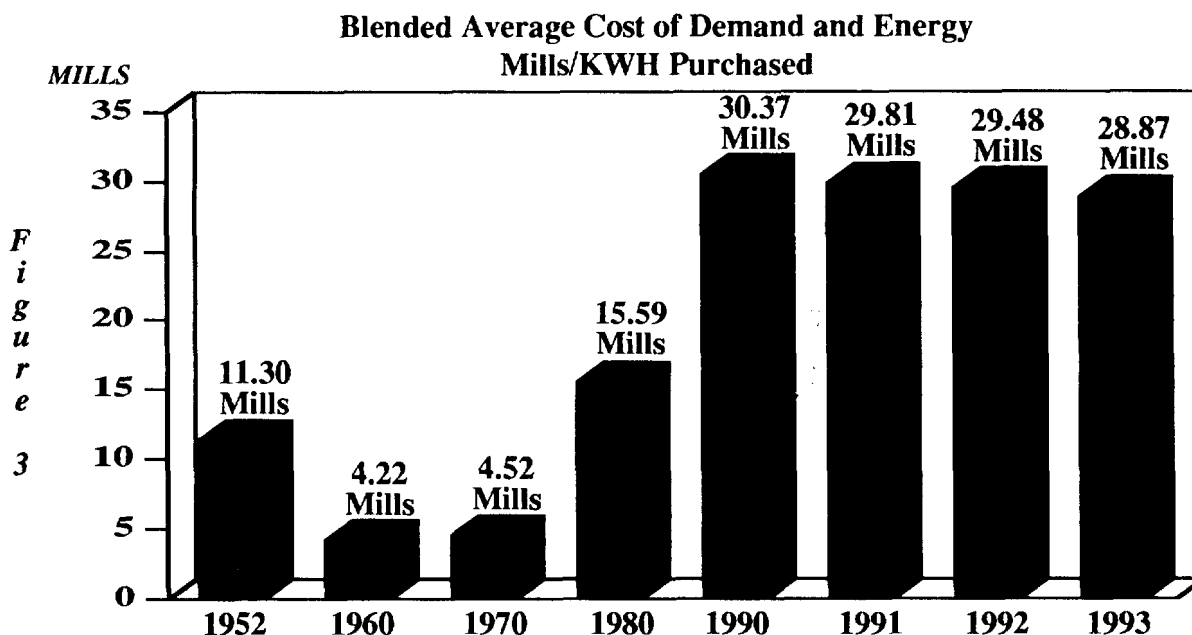
3.8% Depreciation & Amortization

2.9% Taxes

Note: 1993 figures are unaudited

The purchased power expense rose dramatically between 1952 and 1990. Since 1990, purchased power expense has leveled and even shown

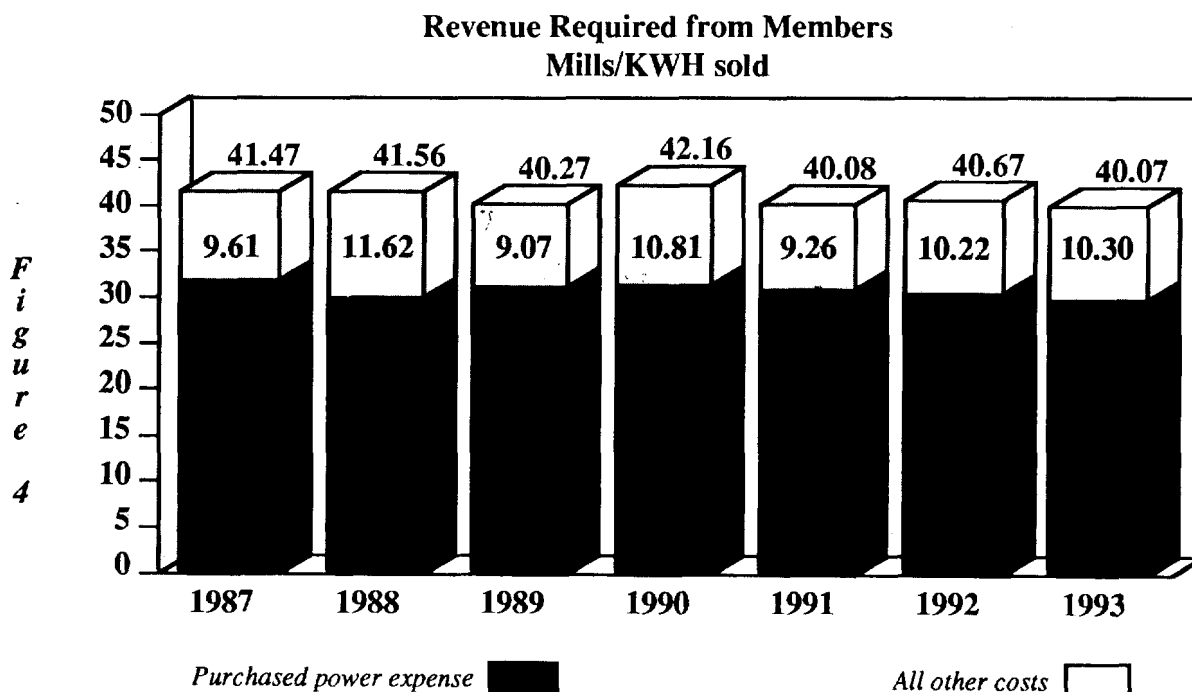
a slight decline. Figure 3 portrays East River's total purchased power costs in mills per KWH for various years since 1952.



Currently the electrical energy which East River purchases and delivers to its 26 member distribution systems comes from hydroelectric power purchased from the Western Area Power Administration (WAPA) and coal fired power from Basin Electric. The federal hydropower purchased from WAPA in 1993 amounted to 48.5% of the Cooperative's total KWH purchases; however, it accounted for only 19.1% of the total purchased power expense. Basin Electric supplied the remaining 51.5% of the energy purchased but because the cost is considerably higher, payments to Basin

accounted for 80.9% of the purchased power expense. In 1992, East River paid an average of 11.35 mills/KWH purchased for WAPA power and 45.36 mills/KWH for power purchased from Basin Electric. The blended purchased power cost in 1993 was 28.87 mills/KWH.

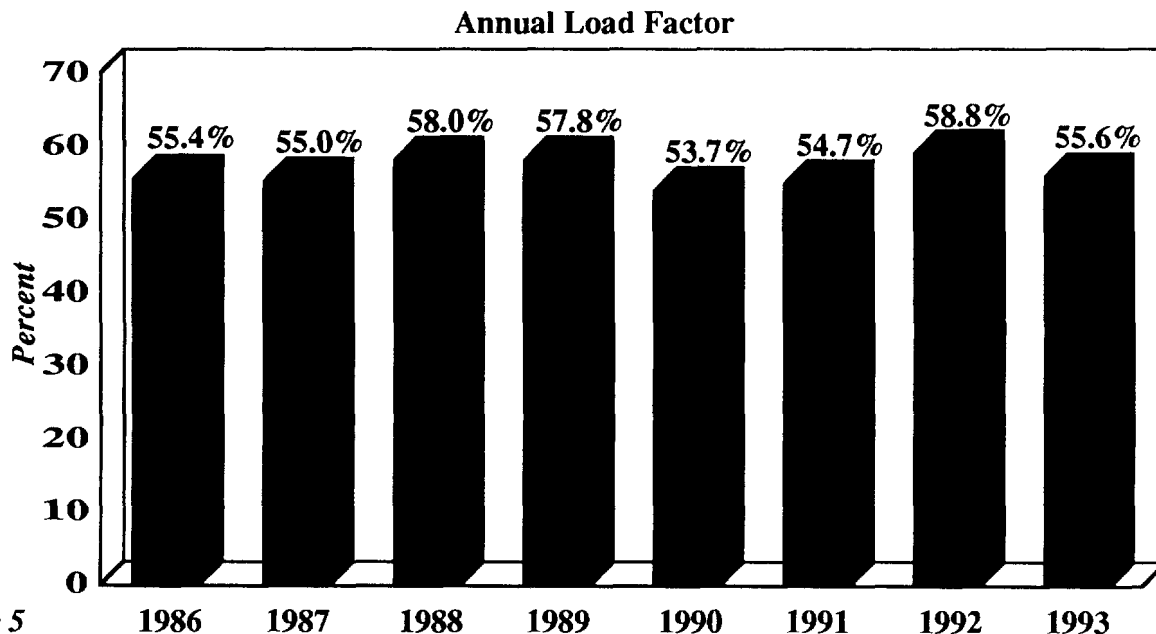
East River's total revenue requirement over the last 7 years expressed in mills/KWH sold is shown in Figure 4. Also depicted is the portion of that revenue requirement attributed to total purchase power expense.



SALES HISTORY:

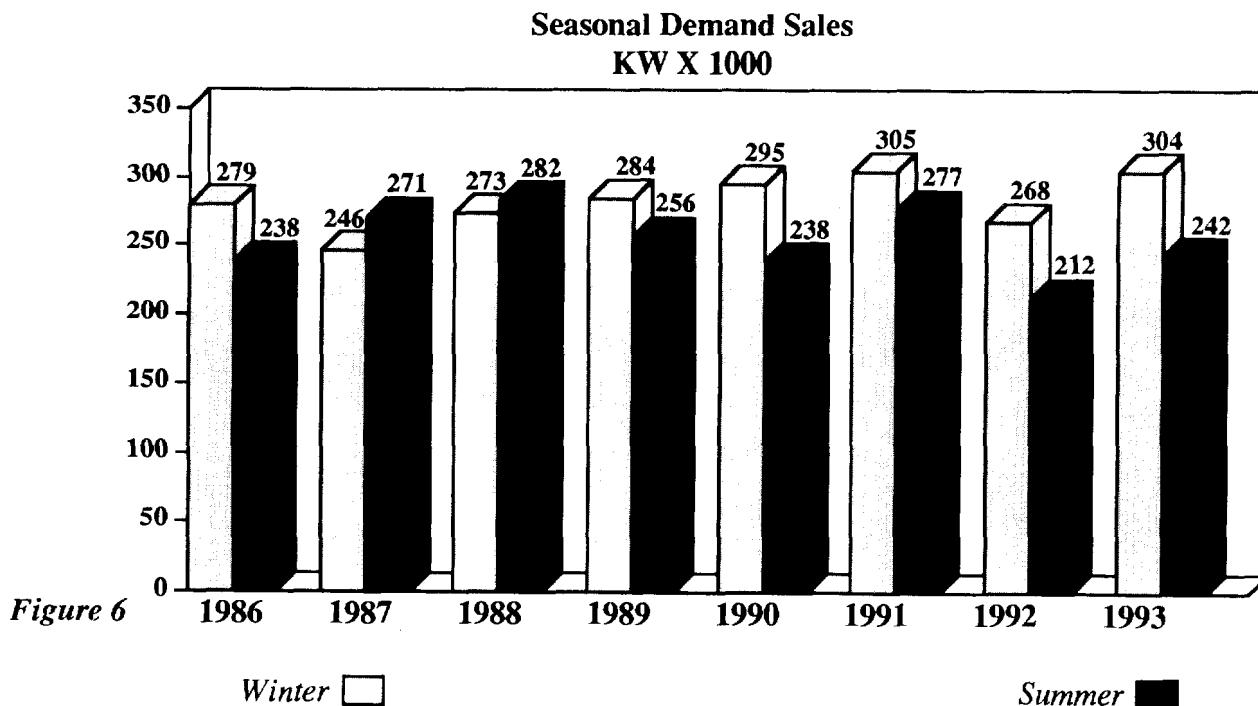
A number of factors have influenced demand and energy sales over the past few years. The most important factor on demand sales has been the implementation of the demand side management system that has enabled the Cooperative to control

peak demand. Beginning in 1989, East River adopted the Basin Electric Special Heating Rates for uncontrolled heating installations and offered a special rate to member systems for uncontrolled electric heat.



Energy sales are influenced by weather and by the economic conditions in the service area. The East River system is extremely weather sensitive in regard to both temperature and precipitation. Figure 6 shows the peak winter and summer system

demands since 1985. While load management has helped moderate these peaks, weather is still the driving force on system loads. A comparison of total energy sales since 1985 is shown in figure 7.



**Total Energy Sales
% increase (decrease) from previous Year**

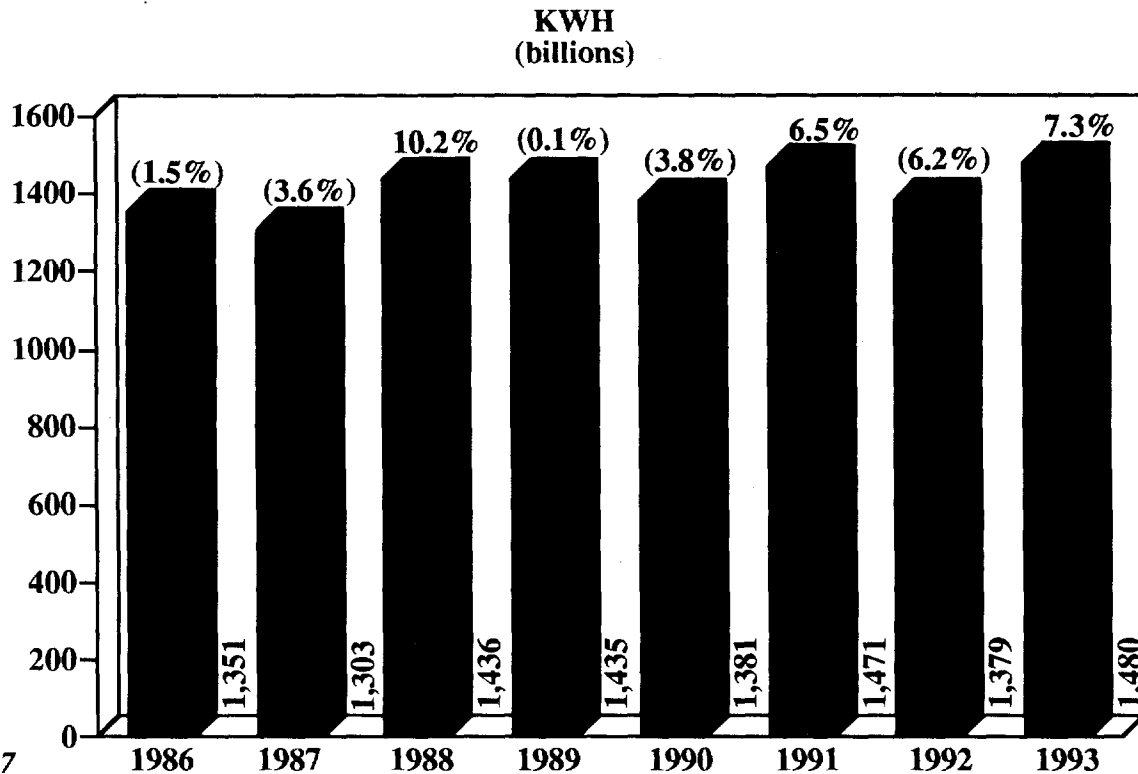


Figure 7

FINANCIAL POSITION:

The Cooperative is required to budget for operating margins equal to a 1.05 TIER (times interest earned ratio) by the REA mortgage.

The Cooperative has budgeted for a TIER in excess of REA requirements to assure a strong financial position. The TIER history for the past six years is:

<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
1.6	1.4	1.6	1.6	1.7	2.1

FINANCIAL STATUS AS OF DECEMBER 31, 1993 UNAUDITED:

Total assets -----	\$114.0 million
Total utility plant -----	\$105.0 million
Total loans paid -----	\$31.2 million
Total loans outstanding -----	\$74.3 million
Equity -----	25.8%

TELECOMMUNICATIONS AND CONTROL SYSTEMS

East River operates extensive Telecommunications, Supervisory Control and Data Acquisition (SCADA) and load management systems to assure the best possible system reliability and efficiency.

The voice radio communications network provides vital communications links to crews in substations and line trucks and distribution cooperative offices throughout the service area by way of 14 base stations and 105 mobile and hand-held radios. This system will be replaced with an 800 MHz trunked radio system utilizing 17 sites and "wide area logic" to automatically track mobiles in 1994. The new system will also carry the traffic of a number of East River's member systems.

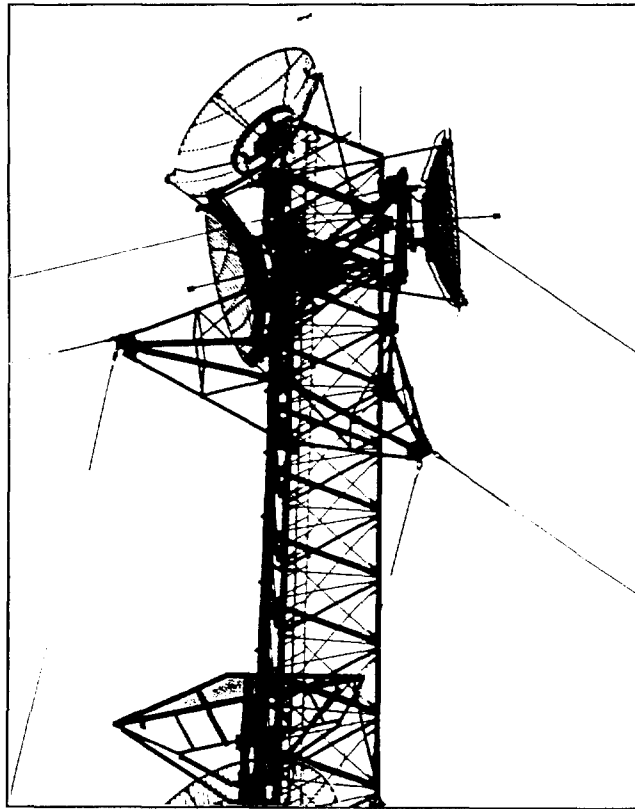
In 1980 the installation of a SCADA system which continually monitors and reports on the status of the entire transmission system was begun. SCADA provides remote control capability, alarm reporting and instantaneous readout of voltage, power factor, weather, system load and other data. SCADA information is collected from 108 reporting stations on over 1700 status points from across the system and transmitted to the Operations Center in Madison via a microwave communications system consisting of 70 towers and radio stations. Continual monitoring of the system and the ability to remotely reroute power by way of 180 remote control switches at 71 locations enhances East River's ability to maintain the highest possible continuity of service.

The demand side management system that East River Electric Power Cooperative, along with its 26 member systems activated on December 15, 1984,

is a low frequency power line carrier system that covers the largest geographical area of any system of this type in the United States.

The system is monitored by the Supervisory Control and Data Acquisition System (SCADA) and controlled from East River's headquarters in

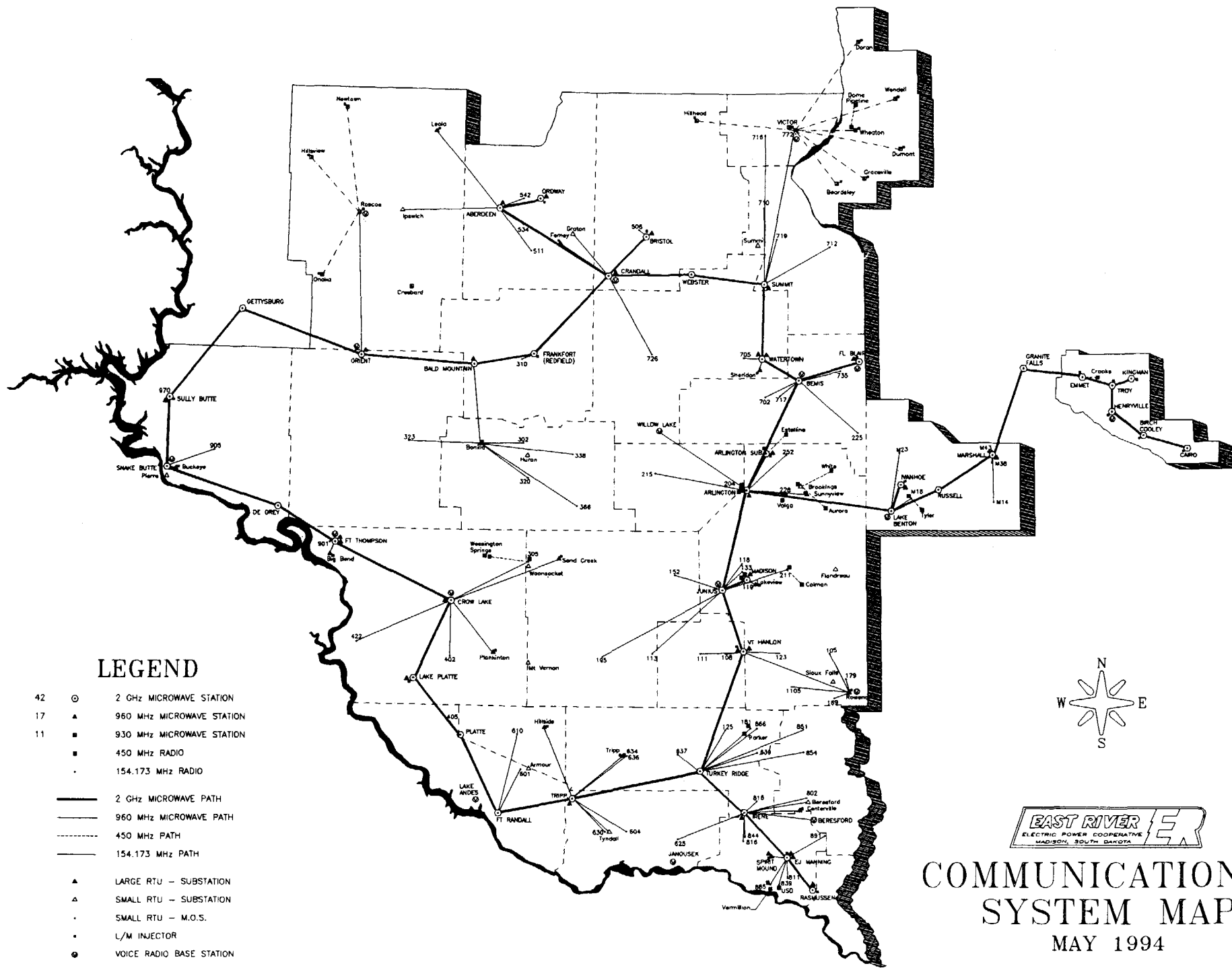
Madison, South Dakota. When electric loads warrant, signals are sent over the microwave system to 45 injector sites located throughout the 36,000 square mile service area. Computerized equipment at these sites "inject" signals onto the power lines. These signals which travel over the power lines activate demand side management receivers connected to various residential, commercial and agricultural electric loads. The demand side management system is used to control system peak demand thereby improving the system's load factor and increasing the use of off-



peak electrical energy.

Through aggressive marketing programs 31,680 electric water heaters, 4,435 air-conditioners, 4,358 dual fuel heating systems, 3,674 thermal storage heating systems, 1,571 irrigation systems, 714 grain dryer systems, 376 demand limiters and 303 commercial and industrial loads had been connected to the demand side management system as of June, 1994.

The telecommunications, supervisory control and data acquisition and demand side management systems play a strategic role in the overall efficiency of the entire East River Electric system in order to provide reliable electric service at the most competitive rates possible.



EAST RIVER STATISTICS

History -- Organized October 26, 1949

Headquartered -- Madison, South Dakota

Service Area -- 36,000 square miles

Number of systems served -- 25 cooperatives and 1 municipal

*Number of consumer accounts served by the member systems:	71,891
a. Residential	65,805
b. Irrigation	1,654
c. Commercial & Industrial	3,931
d. Public Streets & Highway Lighting	142
e. Public authorities	348
f. Others	11

**Based on 1992 Form 7 information.*

Average Member System Density -- 1.7 consumers per mile of distribution line

Miles of transmission line in East River system	2,550 miles
a. 2,396 miles of 69,000 volt transmission line	
Construction cost in 1952:	\$ 4,952/mile
Current construction cost:	\$55,000/mile
b. 47 miles of 115,000 volt transmission line	
Current construction cost:	\$75,000/mile
c. 80 miles of 41,600 volt transmission line	
d. 27 miles of 34,500 volt transmission line	

Number of Substations **202**

High voltage substations:

5-230 KV to 69 KV substations	
Construction cost in 1972:	\$ 915,767
Construction cost in 1980:	\$2,843,969
8-115 KV to 69 KV substations	
Construction cost in 1969:	\$ 479,819
Construction cost in 1984:	\$ 935,269

Distribution substations:

164-69 KV to 12.47 KV substations	
Construction cost in 1952:	\$ 32,700
Construction cost:	\$ 255,000
2-115 KV to 12.47 KV substation	
(2nd to be energized fall of '94)	
6-69 KV to 24.9 KV substations	
2-69 KV to 41.6 KV substations	
12-41.6 KV to 12.47 KV substations	
1-41.6 KV to 4.16 KV substation	
2-34.5 KV to 12.47 KV substations	
1-69 KV breaker station	
1-69 KV to 41.6 KV Interconnection	
1-mobile substation (34.5 KV/41.6 KV/69 KV)	

High voltage delivery points -- East River receives power from the federal joint transmission system at 27 different delivery points

Interties with other utilities -- 13 (for 2-way power exchange)

- 2 ties with Ottertail Power Company
- 5 ties with Northwestern Public Service Company
- 6 ties with Northern States Power Company
- 1 tie with Midwest Power Systems Inc.
- 1 tie with Southern Minnesota Municipal Power Association

East River also has 10 ties with Ottertail Power Company, 8 ties with Northern States Power Company and 7 ties with Montana Dakota Utilities for delivery purposes.

EAST RIVER STATISTICS

Number of wheeling customers -- 26

Arlington, SD	Aurora, SD	Colman, SD	Estelline, SD
Hecla, SD	Howard, SD	Madison, SD	Parker, SD
Plankinton, SD	Tyndall, SD	Vermillion, SD	Volga, SD
Wessington Springs, SD	White, SD	Tyler, MN	Akron, IA
University of South Dakota-Vermillion, SD		Crow Creek Sioux Tribe	
Southwest Minnesota State University-Marshall		Northern States Power Company*	
SD State Training School, Plankinton, SD		Iowa Public Service*	
Hilltop Irrigation District		Northwestern Public Service*	
Grey Goose Irrigation District		Otter Tail Power Company*	

* Emergency basis only

Microwave System -- Original installed cost: \$6.6 million

42 2 GHz stations
19 960 MHz stations
11 930 MHz stations

SCADA System -- Original installed cost: \$3.1 million

16 Remote Terminals at East River Delivery Point Substations
13 Remote Terminals at WAPA Substations
7 Remote Terminals at Motor Operated Switches
12 Remote Terminals at Renville-Sibley Substations & other substations
182 Remote Controlled Switches at 71 locations
27 Master VHF/UHF radios polling 77 remote radios
1,308 Real-time status points
3,319 Operated entered status points
340 Real control points
340 Real-time analog values
1,052 Calculated analog values
478 Displays
950 Mapboard Points

800 MHz Radio System

17 East River dispatched base stations
26 Cooperative offices
6 Miscellaneous base stations
85 Mobile and hand-helds

Municipal Telemetry Radio 17 Municipals

Private Telephone 15 Substations, OPX, Tie-trunk

Demand Side Management System -- Original installed cost \$10.5 million

32 69 KV (13 lowside, 19 highside) Injectors
1 34.5 KV Injector
12 12.5 KV Injectors
83 Displays
10 Controllable load types

Number of Outposts -- 7

Aberdeen, SD
Beresford, SD
Huron, SD
Marshall, MN
Milbank, SD
Mitchell, SD
Onida, SD

NUMBER OF FULL-TIME EMPLOYEES

84 - Madison based

15 - Outpost:

Two employees are stationed at each of six outposts and three employees are stationed at the Aberdeen outpost.

Total-99

EAST RIVER MEMBER SYSTEMS

<u>Member System</u>	<u>Manager</u>	<u>East River Director</u>
Beadle Electric Cooperative, Inc. Huron, SD	Robert Rademacher	Edward Fritzsche
Bon Homme-Yankton Electric Association Tabor, SD	Ronald Koupal	Donald Stewart
Charles Mix Electric Association, Inc. Lake Andes, SD	Mark Mengenhauser	Wallace Johnson
Clay-Union Electric Corporation Vermillion, SD	Paul Roberts	Bernell Peterson
Codington-Clark Electric Cooperative, Inc. Watertown, SD	Bert Voegele	Robert Schwandt
Douglas Electric Cooperative, Inc. Armour, SD	Merlin Goehring	Paul Fink
FEM Electric Cooperative, Inc. Ipswich, SD	Dave Holland	Gordon Petersen
H-D Electric Cooperative, Inc. Clear Lake, SD	Gary Cramer	Robert Ching Treasurer
Intercounty Electric Association, Inc. Mitchell, SD	Loren Noess	Robert Ruml
Kingsbury Electric Cooperative, Inc. DeSmet, SD	Dennis Kruse	Elmer Weerts
Lake Region Electric Association, Inc. Webster, SD	James Mammenga	Kermit Pearson Vice President
Lincoln-Union Electric Company Alcester, SD	Gordon Crawford	Virgil Fodness
Lyon-Lincoln Electric Cooperative, Inc. Tyler, MN	Michael Buckle	Dayle W. Swift
McCook Electric Cooperative, Inc. Salem, SD	Darrell Kirby	Michael Healy
Northern Electric Cooperative, Inc. Bath, SD	Dennis W. Hagny	Dale Engelhart
Oahe Electric Cooperative, Inc. Blunt, SD	Vernon Jutila	Ted Albright
Ree Electric Cooperative, Inc. Miller, SD	Robert Rademacher	George Hargens, Jr. Basin Electric Director
Renville-Sibley Cooperative Power Association Danube, MN	Robert Westby	Ralph Kent
Sioux Valley Empire Electric Association Colman, SD	James Kiley	Harris Davis
Spink Electric Cooperative, Inc. Redfield, SD	Arnold Anderson	Wayne Wright President
Traverse Electric Cooperative, Inc. Wheaton, MN	Donald O'Leary	Harold Murray
Tri-County Electric Association, Inc. Plankinton, SD	Clarence W. Moshier	Keith Kleppin Sec./SDREA Director
Turner-Hutchinson Electric Cooperative, Inc. Marion, SD	Brad Schardin	Charles Olsen
Union County Electric Cooperative, Inc. Elk Point, SD	Larry Cheney	Richard Dailey
Whetstone Valley Electric Cooperative, Inc. Milbank, SD	Brad Scott	Lynn Behrns
City of Elk Point Elk Point, SD	Dennis Larsen	Dallas Harkness

MEMBER SYSTEM

STATISTICAL INFORMATION

Figures as of 12-31-92

Member System	Number of Employees	Miles Energized	Number of Members
Beadle	17	1,412	1,534
Bon Homme-Yankton	22	1,317	2,276
Charles Mix	15	1,355	1,334
Clay-Union	19	1,064	2,592
Codington-Clark	17	1,794	2,122
Douglas	7	522	648
FEM	16	2,264	1,510
H-D	17	1,514	2,519
Intercounty	22	2,220	2,332
Kingsbury	8	749	743
Lake Region	15	1,810	2,650
Lincoln-Union	22	1,286	2,975
Lyon-Lincoln	21	1,610	3,721
McCook	9	778	1,134
Northern	20	1,765	3,003
Oahe	16	1,187	1,099
Ree	10	1,436	904
Renville-Sibley	15	1,133	2,213
Sioux Valley	90	4,026	10,268
Spink	12	1,243	957
Traverse	15	1,654	2,189
Tri-County	23	2,290	1,830
Turner-Hutchinson	24	1,941	3,013
Union	9	440	851
Whetstone	14	1,474	2,890
City of Elk Point	4	15	670
East River	100	2,540	
Total	573	40,923.2	56,632

***The EAST RIVER POWER SYSTEM includes
these 25 electric distribution cooperatives
and one municipal electric system.***

